

Instruction Manual



MACCHINA DA CAFFE'
ESPRESSO COFFEE MACHINE
MAQUINA PARA CAFÉ EXPRÉS
MACHINE A CAFÉ ESPRESS
ESPRESSO KAFFEEMASCHINEN

We congratulate you for having bought this top-quality coffee machine and thank you for choosing Zagato.

Before operating the coffee machine , we recommend to read the following instructions thoroughly which explains how to install and use the unit.

VOLUMETRICA SERIES



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The warning triangle shows all important safety indications to ensure the user's safety. The non observance of said instructions may cause serious injuries!



Operations essential to guarantee efficient function.



Interventions to be carried out exclusively by an installer or authorized technician.



Read these instructions carefully and make sure to hand them to other users.

General Instructions

This Espresso coffee machine is intended for professional use. It is designed to prepare hot drinks such as tea, cappuccino, coffee (at various strengths and volumes) and espresso. Additional accessories are available which have been designed for optimum use of the machine.

If the machine has two or more groups, it can be operated by two persons at the same time. These characteristics, together with the fact that the machine is capable of non-stop preparation of hot beverages, guarantee extensive and efficient use.

Please read the instructions carefully before using the machine!

The coffee machine that you have purchased was designed and constructed in compliance with the requirements of contemporary technologies, which provide quality and reliability.

The instructions will help you to get acquainted with the advantages of this machine. Here you will find information about how to operate the machine in the most efficient way and how to react if malfunction will occur.

Store this manual carefully. If you should lose it, you can ask for an additional copy from the distributor.



General safety instructions

Do not touch the machine with wet hands and feet!

Do not use the machine barefooted!

Do not use cable extensions in wet areas!

Do not switch off from the mains!

Before the specialized personnel carries out maintenance operations deactivate the appliance from the electrical network through the omni-polar switch.

Follow the instructions for the everyday cleaning as given in this manual.

In case of damage or improper functions switch off the machine. Do not try to repair it yourself, but refer to specialized personnel.

The original plug should not be replaced by the user. In case the plug gets damaged, switch off the machine and refer to a professional.

In case you decide not to use the machine for long time, it is recommended to switch it off from the mains and to drain the water from the boiler.

For the proper functioning of the coffee machine it is necessary to follow the instructions of the manufacturer strictly and also to have specialized staff perform periodical maintenance.

Do not expose your hands or other part of your body in the direction of the coffee, the steam or hot water outlets. Steam and hot water may cause injuries.

Any unauthorized handling of any part of the machine renders any guarantee null and void.

How to use the instructions

These instructions cannot anticipate every possible use of the unit.

For further information or question concerning specific situations or problem, please contact the local dealer or manufacturer directly.

Danger! Electrical parts should never be in contact with water: danger of short circuit!

This unit must be used exclusively for the purpose it has been manufactured.

Do not make technical changes for any reason whatsoever; any improper use is forbidden, due to the risk which might occur!

The unit must be connected to a socket with a suitable voltage. Voltage must correspond to the voltage shown on the appliance rating plate.

Power Cord

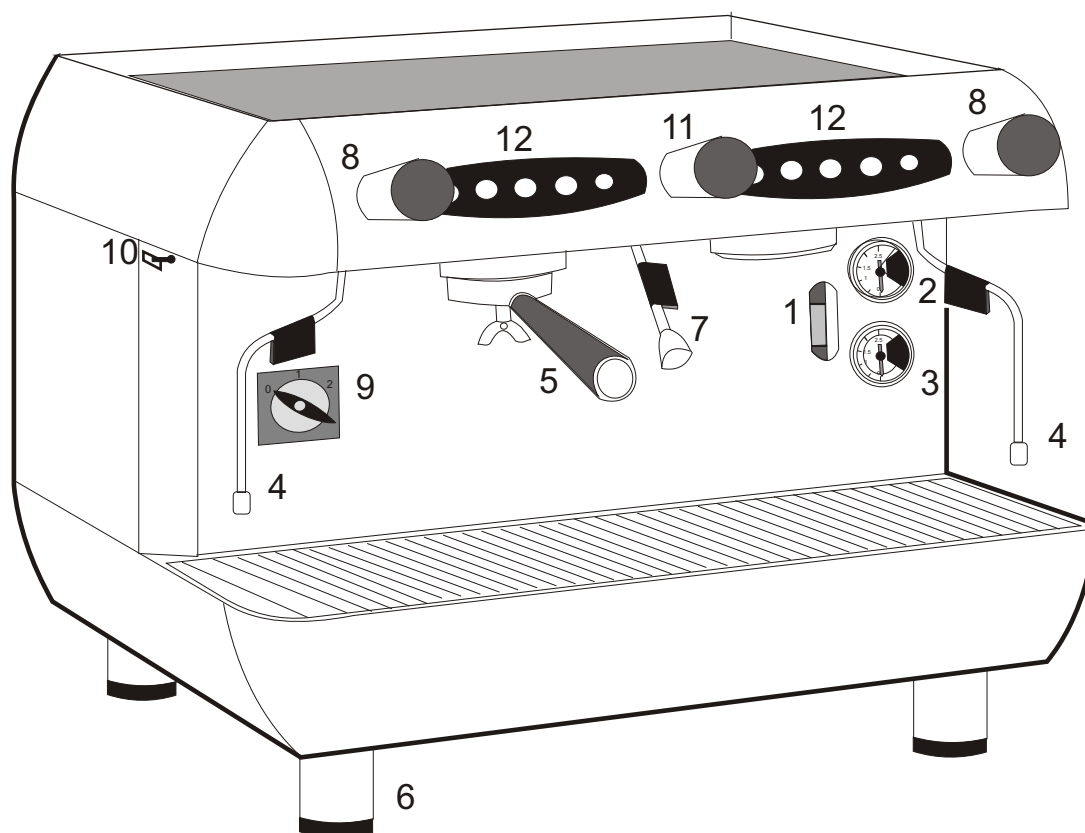
Never use this unit with a defective power cord. Replace defective power cords and plugs, contact authorised personnel. Do not extend the power cord around corners or sharp edges or over hot parts. Do not unplug the unit by pulling the power cord and never touch it with wet hands. Make sure the power cord does not hang from tables or shelves.

Keep children away

Do not allow children to play with the machine. Children are not aware of the potential danger caused by electrical appliances.



Volumetrica series



- | | |
|-----------------------------|--------------------------------|
| 1 Boiler level-check window | 7 Hot water dispensing |
| 2 Boiler pressure gauge | 8 Steam Knob |
| 3 Pump gauge | 9 Machine main switch |
| 4 Steam nozzle | 10 Internal programming switch |
| 5 2-cup filter | 11 Hot water knob |
| 6 Adjustable feet | 12 Push button panels |



Positioning

Place the unit on a level surface.

Keep 5 cm of clear space from the side wall of the unit and 10 cm from the rear.

In order to function at its potential avoid placing the unit near hot temperature areas.

Use the adjustable legs to level the unit.

Do not place heavy objects on top of the unit.



Model	Zagato 1gr Volumetrica	Zagato 2gr Volumetrica	Zagato 3gr Volumetrica
Power	11AMP: 240V 50/60HZ; 2400W	17AMP:240V 50/60HZ 3900W	25AMP:240V 50/60HZ 6000W
Water pres min./max.	2 bar/4 bar		
Width x Height x Depth	500x620x520	700x620x520	950x620x520
Boiler Capacity litre	6 l	12 l	18 l
Heating Element	2000W	3400W	5500W
Brewing Group Heads	1	2	3
Steam Wand (-s)	1	2	2
Hot Water	1	1	1
Electronic : Multiple pre/brewing & volume setting - Auto self-cleaning			
Temperature control	1.2 bar pressure switch for heated water output		
Litre/hour	7 l/h	14 l/h	21 l/h
Espresso production 30 ~ 40 ml	120 e/h	240 e/h	360 e/h
Finish/Color	Aluminum stainless steel look (Silver)		
Filter handle(-s)	1single/1double	1single/2double	1single/3double
Rack (6cm high)	1	2	2
Blind Filters	1	2	3





Preparation of the machine

The preparation of the coffee machine and its installation must be performed by qualified staff.

Starting the machine

Open the water tap of the water mains and of the softener / water filter.

Turn the switch to position “1” (electrical power supplied to the pump for automatic boiler filling and machine services) and wait for the boiler to be automatically filled with water.

Turn the switch to position “2” (full electrical power supplied, including the heating element in the boiler) and wait for the machine to warm up completely.

Wait for the pressure to reach its operational pressure $1.1 \div 1.3$ atm checking the boiler pressure on the gauge

Should the machine fail to stabilize on the indicated values it is necessary to calibrate the pressure switch as described in calibration paragraph.

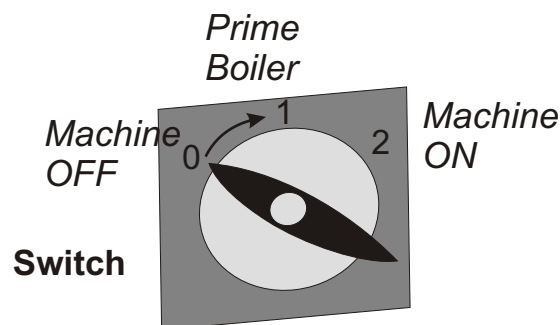
Then check the pressure on the pump gauge putting a unit into operation with filter holder engaged filled with ground, dosed and pressed coffee in order to achieve an effective working pressure of $8/9$ atm.

Should re-calibration of the pump pressure be necessary this operation should be undertaken as indicated in the “calibration” paragraph.

WARNING



Use of the machine without all the installation operations having been carried out by technical personnel could damage it seriously.



WARNING



During the machine's warm-up (roughly 20 minutes), the negative pressure valve will release steam for a few seconds until the valve itself closes.

Before using the machine, run deliveries with the filter holder attached for a few seconds to release any air which may be in the circuit, so that the head groups are completely heated.

The user must be provided with instructions in order to use the machine properly. It is recommended not to take actions which may disturb the functions of the machine.

WHEN THE MACHINE IS SWITCHED ON, ITS BOILER CONTAINS STEAM AND WATER UNDER PRESSURE



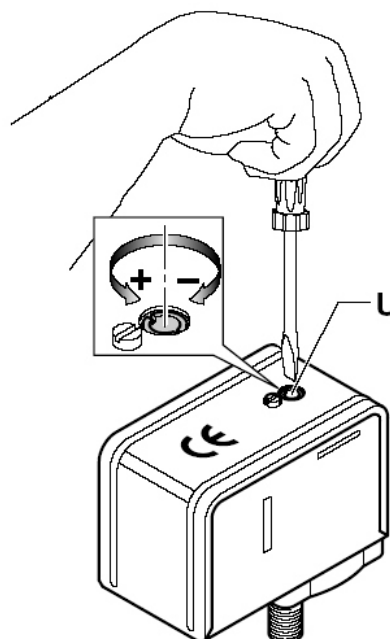
Pressure switch adjustment

The pressure switch shown in the figure acts to keep the boiler pressure constant by engaging or de-activating the electrical heating resistance.

This pressure switch is already calibrated to 1.1-1.3 bar during the initial machine testing stage, but should a different working pressure be required, it is possible to vary the operational field of the pressure switch using the regulation screw (U); pressure reduction results in a reduction in temperature, whilst increasing the pressure will also increase the water temperature.

The regulation direction is shown in the figure and on the pressure switch itself.

The pressure varies by 0.1 atm for every complete screw turn,



WARNING



Disconnect the electricity supply before undertaking this operation.



Pump pressure adjustment

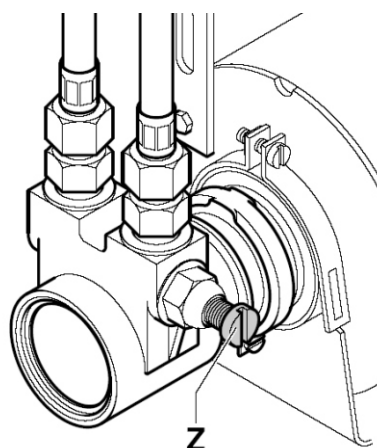
Insert the filter holder into the unit filled with regularly ground, dosed and pressed coffee. Press one of the coffee button and read the pressure on the pump pressure gauge

NB: The correct pressure is of 8-9 atm.

Should the pressure indicated on the pressure gauge be incorrect, turn it clockwise to increase the pump pressure and anti-clockwise to reduce the pressure.

Once adjustment is complete check pump calibration by delivering one or more coffees.

Z= Pump pressure adjustment screw.



Coffee Pouring

On pressing the corresponding button T1-T2-T3 or T4, the corresponding delivery solenoid valves are activated for the time necessary to obtain the required amount of product as previously programmed (volumetric check).

The delivery in progress may be suspended before actually reaching the desired programmed product quantity by pressing button T5 Stop.


It is also possible to obtain simultaneous coffee delivery from all the machine groups.

 T1 single espresso coffee

 T2 double espresso coffee

 T3 single long coffee

 T4 double long coffee

 T5 programming/continuous and stop

Continuously Coffee Pouring

For continuous coffee measure delivery press button T5 from the keyboard corresponding to the group head which one wishes to operate. Press again the same button T5 to Stop.

Pre infusion

Our software permits measure configuration so that the relative delivery of the COFFEE measures through volumetric control is

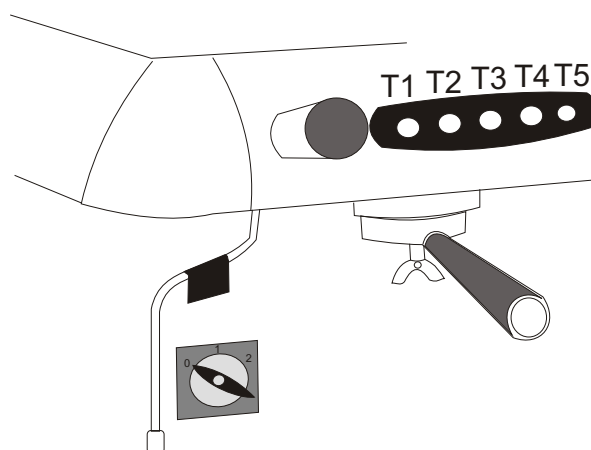
preceded by pre-infusion. Delivery of the coffee measure after time 1 (ON) is suspended for a time 2 (OFF) and is then resumed for the completion of selection. On pressing one of the volumetric control measure buttons, the normal delivery cycle is preceded by a short timed water jet in order to dampen the coffee before actual delivery stage.

This function ensures the optimum extraction especially for espresso coffees.

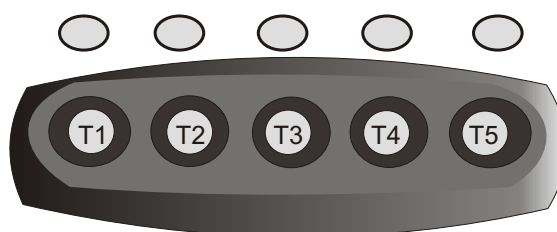
Boiler (filling) level time out

This alarm condition occurs whenever the water level is too low or the level probe remains uncovered. In such a case all the buttons are lit.

The filling stage is automatically engaged and to cancel the alarm conditions switch the machine off and then on again.



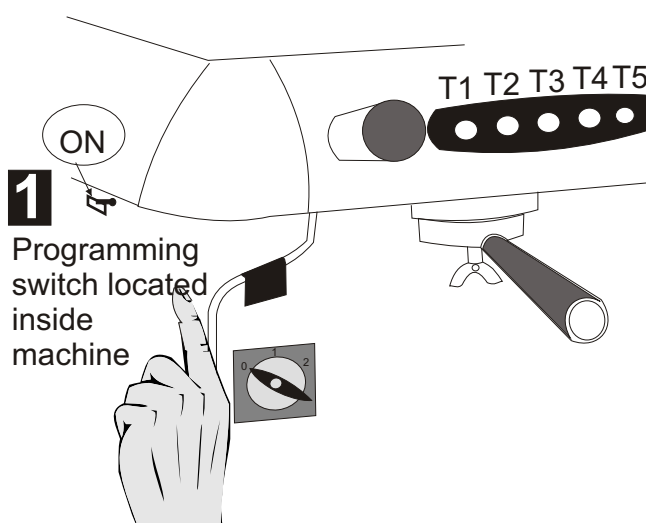
Alarm conditions all buttons lit





IMPORTANT

The programming of every dose must be done with ground coffee and not with previously used grounds. With machines having two or three groups, by first programming the right-hand buttons the others are automatically programmed. It is however both possible and advisable to program the push button panels independently, always starting from the right-hand button panel.



1

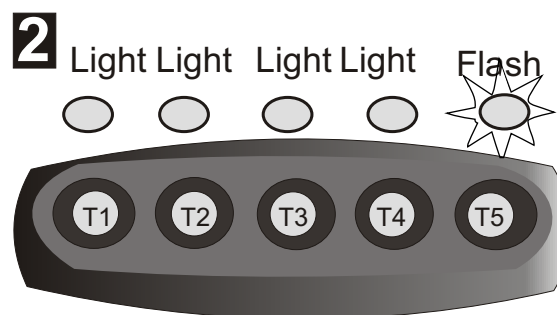
Coffee measure programming

Place the programming switch in the ON position. It is located inside the coffee machine on the left-hand side panel of the body. To access the inside of the machine remove the top tray cup warmer.

2

The buttons T1-T2-T3-T4 will light up. The button T5 will flash.

NO pre infusion mode



IMPORTANT

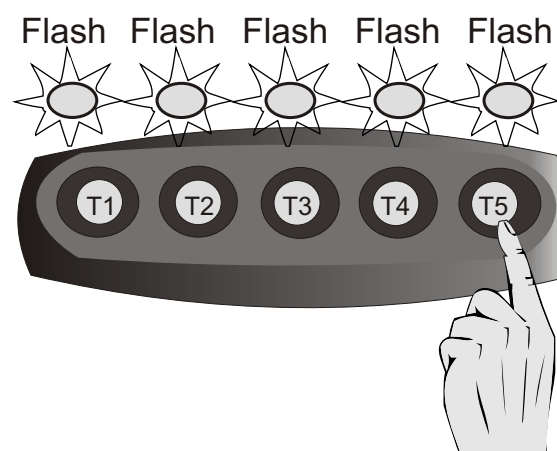
Programming mode

Use the button T5 to swap between pre infusion and no pre infusion programming mode.

When the button (T1/T2/T3/T4) flashes you are in pre infusion mode

When the buttons light up you are in normal pouring mode (no pre infusion)

Pre infusion mode



3 Programming with pre infusion (Buttons must flash, if not press T5)

Put the coffee cup under the dispensing spout.

4 Press the button to be programmed and hold for as long as you want the pre-infusion. (Aprox. from 1 to 3 sec)

Wait up to 2 sec. (Infusion time)

5 Press and hold the same button again until the desired dose is obtained.

6 Press button T5 to confirm.

7 Programming with no pre infusion (Buttons must be lit up, if not press T5)

Put the coffee cup under the dispensing spout.

8 Press and hold the button to be programmed until the desired dose is obtained.

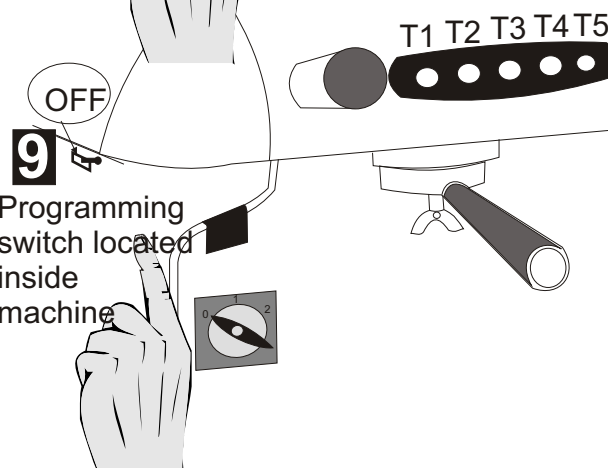
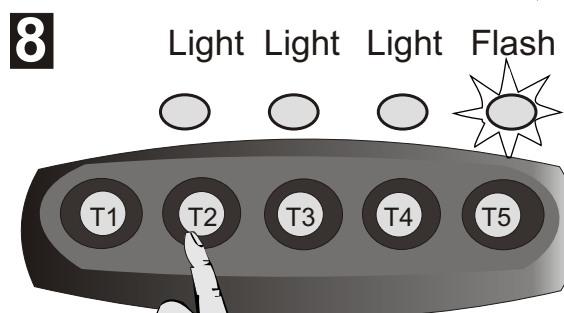
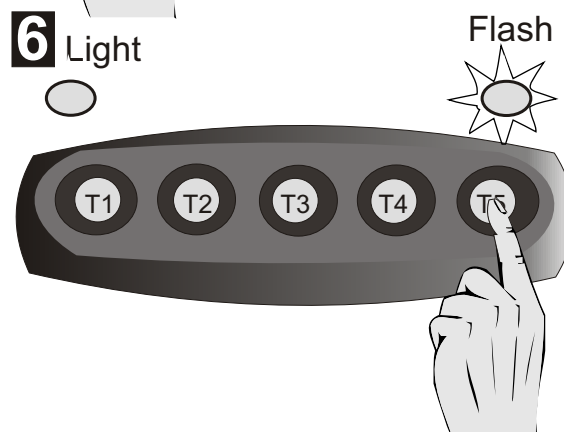
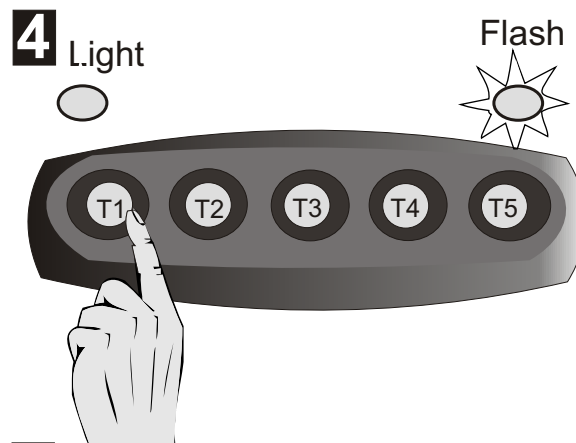
Press button T5 to confirm.

NOTE! Repeat the following operation for the programming of the remaining buttons :

For programming with pre infusion repeat steps 3 to 6

For programming with no pre infusion repeat steps 7- 8 and 5

9 Once completing the programming, place the programming switch back in the OFF position.



Dispensing hot water

To dispense hot water , turn the tap knob (W) counter -clockwise : the amount of water which comes out of the nozzle will be proportional to the opening of the tap.

Dispensing Steam

To dispense steam , turn the tap knob (S) counter -clockwise : the amount of steam which comes out of the nozzle will be proportional to the opening of the tap.

The steam nozzles must be cleaned immediately after use in order to prevent the risk of the formation of any scale which may block the holes and to ensure that any drinks made subsequently do not absorb any unpleasant odors.

NOTE !

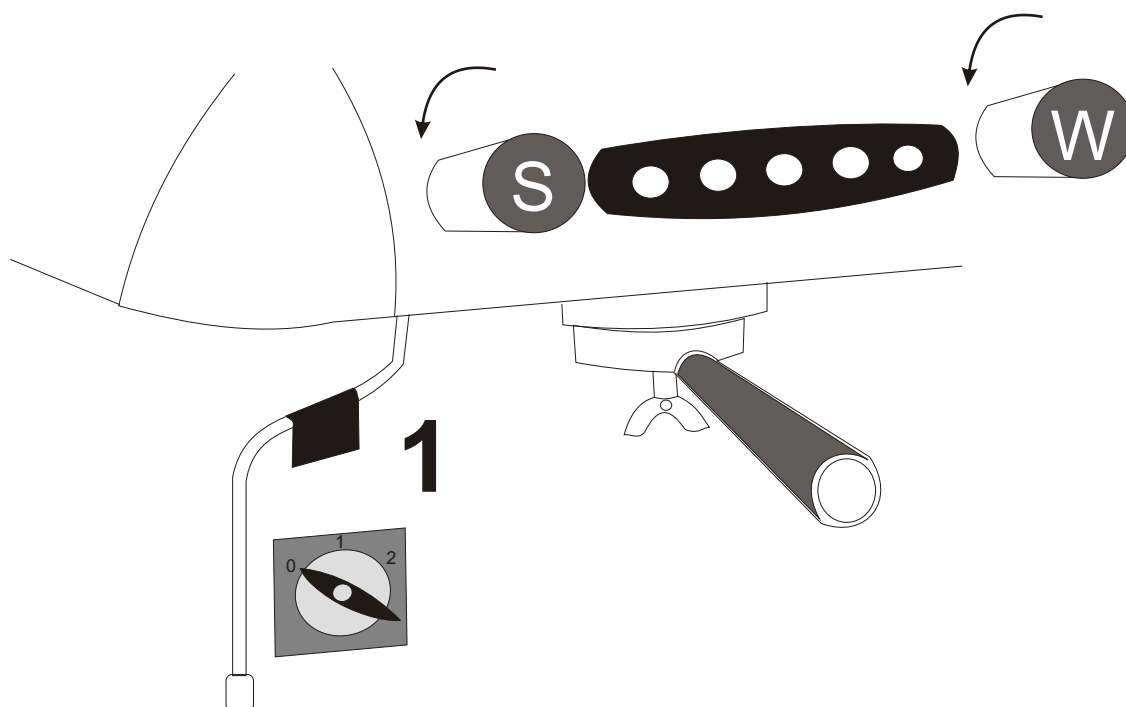
IMPORTANT

You can also pull the tap knob either for the steam or the water in order to get hot water/ steam.

WARNING



Handle the steam nozzle with care using the anti-burn handle (1) and do not touch the hot water nozzle. Contact with steam and hot water may be harmful to people.





Filter and filter holder

The filters (F) and the relative filter holders (G) must be cleaned daily in hot water. The best thing to do is to let them soak in hot water overnight so that the fatty coffee deposit can dissolve.

It is advisable to special coffee machines detergent to the water , and then to rinse everything off with water. Failure to clean the filters and filter holders daily will compromise the quality of the coffee and will also cause problems such as bad extraction and coffee grounds at the bottom of the cup.

Showers

The showers (D) should be cleaned weekly in hot water. To do this loosen the screw (E) and remove the shower.

Steam Nozzles

The steam pipes must be kept clean all the times. Check the ends of the steam nozzle and clean them daily, clearing out the exit holes with a small needle.

Filter Holder

It is advisable to leave the filter-holder cups inserted with the coffee dregs for the entire working day to ensure that the filter-holder is always at optimum temperature..

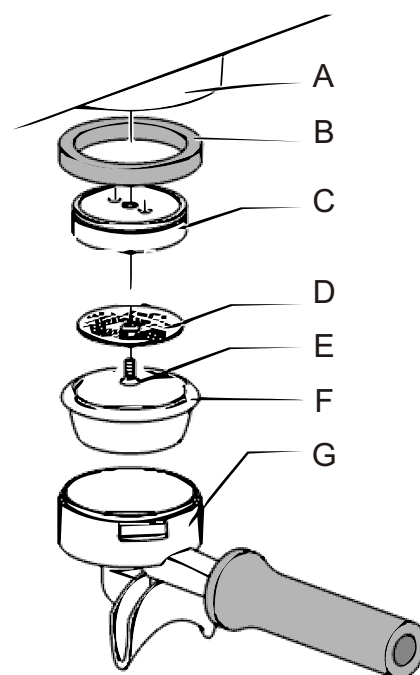
Body

The body panels should be cleaned with a cloth soaked in warm water Do not use abrasive detergents since the panels could get scratched.

IMPORTANT

For the perfect cleaning and efficiency of the appliance, several simple cleaning operations are necessary on the functional parts and accessories as well as the body panels.

The indications given here are applicable for normal use of the coffee machine. If the machine is heavily used then cleaning should be performed more frequently.



- A GROUP HEAD
- B SEAL
- C SHOWER HOLDER
- D SHOWER
- E SCREW
- F FILTER BASKET
- G FILTER HOLDER

Group heads (back flushing)

The cleaning of the internal parts of the delivery groups is to be performed weekly in the following manner:

Insert the rubber blind filters (A) in the filter-holders

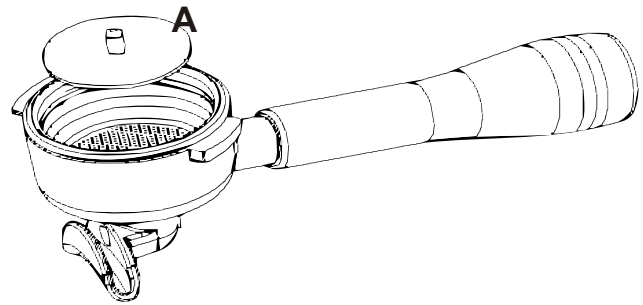
Pour a teaspoon of a suitable detergent powder on each of the blind filters and attach the filter-holders to the groups.

Using the right-hand button panel, press at the same time button T1 and T5 to activate the automatic cleaning cycle. The buttons T2, T3, T4 will light up.

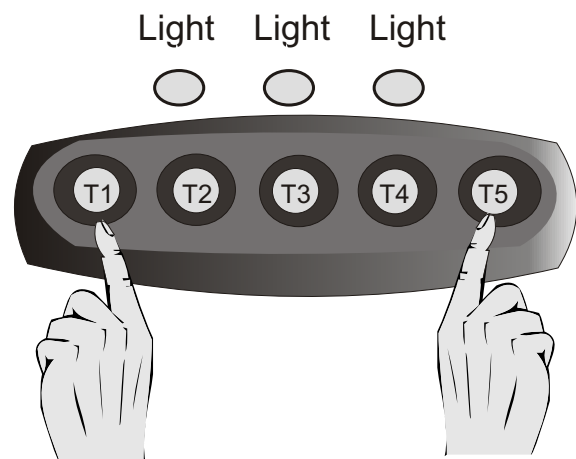
After the 10th cleaning cycle on the right-hand group, it will start a new cleaning process in the left-hand group.

The cleaning cycle will stop automatically or by pressing the T3 button.

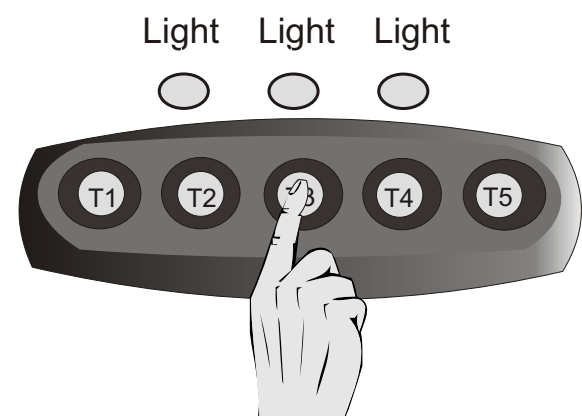
Rinse out the unit using a normal filter and then undertake a few dispensing operations using water only. Then prepare a coffee in order to eliminate any detergent residue.



Start automatic back flushing



Stop automatic back flushing



Machine maintenance

Periodically check the following items:




Check the pump pressure gauge which should indicate a value between 8 and 9 bar. In case of malfunction, request the assistance of technical personnel.

Check the pressure gauge, making sure that the boiler pressure is 0.8 -1.2 bar.

Check the conditions of the filters for any damage along the edges and see if there are any coffee grounds in the cup. If necessary replace the filters.

DEFECT	CAUSE	SOLUTION
No power to machine	1 Main switch off 2 Machine switch off 3 Incorrect electrical mains connection	1 Switch mains on 2 Switch machine to 2 3 Contact specialized personnel to check connection
No water in boiler	1 Main tap closed 2 Clogged pump, filter 3 Motor/pump faulty	1 Open the mains tap 2 Replace water filter 3 Contact specialized personnel
No water from group head	1 Main tap closed 2 Motor/pump faulty 3 Clogged jets 4 Electronic board faulty 5 Solenoid valve faulty 6 buttons panel faulty	1 Open the mains tap 2 Contact specialized personnel 3 4 5 6 ↓
No Steam from the nozzle	1 Too much water in the boiler 2 Damaged heating element	1 Contact specialized personnel 2 ↓
Too much water in the boiler	1 Motor/pump remains engaged 2 Perforated heat exchanger 3 Water inlet solenoid blocked	1 Contact specialized personnel 2 3 ↓
Machine leaking	1 Dirty/clogged drain box 2 Drainage pipe clogged or detached 3 Other internal leakages	1 Clean the drain box 2 Replace/clean the drainage pipe 3 Contact specialized personnel
Delivery of coffee is too fast	1 The coffee is too coarse 2 Not enough coffee in the filter basket	1 Adjust the grinder finer 2 Adjust the grinder doser
Delivery of coffee is too slow	1 The coffee is too fine 2 Too much coffee in the filter basket	1 Adjust the grinder coarser 2 Adjust the grinder doser
Coffee grounds are wet	1 Not enough coffee in filter basket 2 The group heads are too cold 3 The coffee is too fine	1 Adjust the grinder doser 2 Wait for group head to heat up 3 Adjust the grinder coarser
Grounds in cup	1 The filter holder is dirty 2 The filter holes are worn 3 The coffee is not ground evenly	1 Clean the filter holder 2 Replace the filter 3 Service the grinder

DEFECT	CAUSE	SOLUTION
Coffee delivered cold	1 Lime scale present on the heat exchanger or element 2 Oxidized pressure switch contacts 3 Defective electrical connection 4 Partially burnt out element	1 Contact specialized personnel 2 3 4 
Coffee delivered too hot	1 Incorrect pressure switch calibration	1 Contact specialized personnel
All buttons lit	1 Safety device activated 2 No water in mains 3 Coffee is too fine	1 Turn the machine off and back on 2 open the water mains tap 3 Adjust grinder
The pump leaks water	1 Pump malfunction	1 Contact specialized personnel
The pump functions below the nominal capacity	1 Pump malfunction	1 Contact specialized personnel
The pump is noisy	1 Pump malfunction	1 Contact specialized personnel



WARNING

If the problem is not solved, turn the machine off and contact technical service for assistance.
Do not attempt to undertake any repairs.

Machine dismantling

To dismantle the machine we recommend that it is dismantled and the parts separated according to the type of materials involved (plastic, metal, etc). The parts separated in this way are then to be sent to the relative specialized disposal companies.



About the manual

The manufacturer reserves the right to add additional details to the product. We guarantee that these instructions reflect the actual state of the product at the moment of its sale in the market.

We also would like to use this occasion to invite you to offer suggestions regarding possible improvements of this product or the instructions themselves.



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